

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-3, 5-8 and 10-14 are currently pending. Claims 4 and 9 are hereby canceled. Claims 1, 6 and 11-14 are independent. Claims 1, 3, 6, 8 and 11-14 are hereby amended. No new matter has been introduced. Support for this amendment is provided throughout the Specification as originally filed.

Changes to the claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §102

Claims 1-8 and 10-14 were rejected under 35 U.S.C. §102 as allegedly anticipated by U.S. Patent No. 5,604,646 to Yamawaki.

Applicants respectfully traverse this rejection.

Independent claim 1 is representative and recites, *inter alia*:

“... playing back data ... in response to a request ... including a condition for outputting of the playback data within a predetermined period of time;

...

wherein, during the predetermined period of time ... performs retry processing to correct a bit error ... and, when the predetermined period of time has elapsed, the error

correction means substitutes recognizable dummy data for said playback data output to said later-stage processing when said error correction means detects a bit error difficult to correct.” (emphases added)

As understood by the Applicants, Yamawaki discloses, in relevant part, a data error correcting method for a disk accessing apparatus that transfers target data that follows a sync pattern to a speed matching buffer. The target data is transferred to a buffer memory and subjected to an error correction operation. When detection of a sync pattern is unsuccessful, dummy data is supplied directly to the buffer memory in place of the undetected target data. Abstract. The dummy data is then subjected to the error correction operation. Col. 5, lines 19-24. There is no disclosure in Yamawaki that a received request for data has two parts: the specific playback data requested AND a time limitation in which to supply the playback data.

In contrast, claim 1 recites, “. . . playing back data . . . in response to a request . . . including a condition for outputting of the playback data within a predetermined period of time . . . wherein, during the predetermined period of time . . . performs retry processing to correct a bit error . . . and, when the predetermined period of time has elapsed, the error correction means substitutes recognizable dummy data for said playback data output to said later-stage processing when said error correction means detects a bit error difficult to correct.”

First, in the aspect of claim 1, the request for playback of data includes a condition that the requested playback data be outputted within a predetermined period of time. The period of time is a condition of the later-stage processor requesting the playback data NOT an internal time-out of the playback apparatus. In this embodiment, the later-stage processor provides a playback command imposing a condition in addition to the ordinary playback commands for making requests for playback operations. That is, the playback data is reproduced continuously.

The playback command issued by the later-stage process, such as an external AV apparatus or personal computer, includes such a condition and makes a request for a transfer of data within a predetermined period of time set for the data to be played back. Pub. Appl. par. [0065].

It is an aspect of the predetermined time period set by the later-stage processor in the embodiment of claim 1 that contiguity of data in the hard-disc drive is taken into consideration more than data reliability. That is, a higher priority is given to continuity of playback data over reliability of the playback data by limiting the retry and alternative processing. Pub. Appl. pars. [0005]-[0007]. Yamawaki does not disclose that the received command for playback of data includes a limitation for a predetermined timer period. Indeed, Yamawaki stresses the reliability and accuracy of the data over the continuity of playback data to later-stage processing.

Second, claim 1 recites, “during the predetermined period of time . . . performs retry processing to correct a bit error . . . and, when the predetermined period of time has elapsed, the error correction means substitutes recognizable dummy data for said playback data output to said later-stage processing when said error correction means detects a bit error difficult to correct.” That is, there are two periods of time addressed in the embodiment of claim 1. During the predetermined time period for playback of the data, the apparatus of claim 1 can perform retry processing in an attempt to recover from a detected bit error. After the predetermined time period elapses, the apparatus of claim 1 substitutes the recognizable dummy data for the playback data. That is, after the time period specified by the later-stage processor, data is provided to later-stage processor whether such data is correct or not. That is, the contiguity of supply of the playback data has precedence over the reliability of the playback data. Whereas, Yamawaki does not receive a time constraint from a later-stage processor along with the request

for playback data and then does not invoke that time constraint to provide data, reliable or not. Moreover, Yamawaki also does not predicate supply of the dummy data on a time period provided by the later-stage processor.

The Office Action points to Col. 3, lines 60-62 for information related to this element. At that location Yamawaki only discusses replacing dummy data stored in the buffer memory. However, there is no disclosure in Yamawaki that a later-stage processor not only requests playback data but also provides a time period in which to provide that data. Moreover, Yamawaki does not predicate sending dummy data based upon the time period elapsing.

Thus, claim 1 is patentable over Yamawaki because the reference does not disclose each and every limitation recited in the claim. In particular, Yamawaki does not disclose, “. . . playing back data . . . in response to a request . . . including a condition for outputting of the playback data within a predetermined period of time . . . wherein, during the predetermined period of time . . . performs retry processing to correct a bit error . . . and, when the predetermined period of time has elapsed, the error correction means substitutes recognizable dummy data for said playback data output to said later-stage processing when said error correction means detects a bit error difficult to correct” as recited in claim 1.

For reasons similar or somewhat similar to those described above with regard to independent claim 1, independent claims 6 and 11-14 are also believed to be patentable.

CLAIM 6

Independent claim 6 is representative and recites, *inter alia*:

“wherein recognizable dummy is substituted for said playback data recorded in the defective sector of said disc recording medium and output to said later-stage processing as a result of an access to said defective sector.” (emphasis added).

As discussed above, Yamawaki discloses that dummy data is provided when the disk interface (13) is unsuccessful in detecting a sync pattern on the disk. When the sync pattern is not detected, Yamawaki can not identify the target data. That is, in Yamawaki it is the failure to detect a sync pattern that causes substitution of dummy data in the buffer.

Claim 6 includes elements substantially the same as discussed herein above with regard to claim 1 and is believed allowable for at least the same reasons.

Moreover, claim 6 recites, “dummy is substituted for said playback data recorded in the defective sector of said disc recording medium and output to said later-stage processing as a result of an access to said defective sector.” That is, in the present application the disk has a defective sector. Dummy data is substituted for the data in the defective sector. This is distinguishable from Yamawaki wherein the disk interface merely fails to detect the sync pattern that alerts the system that target data follows.

That is, in Yamawaki the error is a failure of the reader to detect the sync pattern on the disk and, thus, fail to locate the target data. In Yamawaki, a re-reading or the error correction of the data may recover the desired target data and be substituted for the dummy data.

In contrast, in this aspect of the present invention recited in claim 6, the disk itself has a defective sector. Once a defective sector is determined, re-reading will the sector will not

retrieve the playback data. With a defective sector, the recited alternative processing is performed as disclosed in the specification. *See, for example*, Pub. Appl. par. [0061].

Thus, claim 6 is patentable over Yamawaki because the reference does not disclose each and every limitation recited in the claim. In particular, in addition to the reasons discussed above in regards to claim 1, Yamawaki also does not disclose, “dummy is substituted for said playback data recorded in the defective sector of said disc recording medium and output to said later-stage processing as a result of an access to said defective sector” as recited in claim 6.

For reasons similar or somewhat similar to those described above with regard to independent claim 6, independent claims 12 and 14 are also believed to be patentable.

III. DEPENDENT CLAIMS

The other claims are dependent from one of the claims discussed above and are therefore believed patentable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

Claims 1-14 are in condition for allowance. In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

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In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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